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REMARKS

New Claims 4-6 have been substituted for previously amended Claims 1-3.

Claim 1 was rejected under 35 U.S.C. 112 because "terminating" is said to be synonymous with "destroying". New claims have been substituted which do not have language inconsistent with this position. The word "completing" or "completes" or "completed" is used instead to describe the point in the handling of a task where a task has finished executing.

Claim 1 had been rejected under 35 U.S.C. §102 as being anticipated by WONG.

Claim 2 had been rejected under 35 U.S.C. § 103 as being unpatentable over WONG in view of SPIX.

Claim 3 had been rejected under 35 U.S.C. § 103 as being unpatentable over WONG in view of WALLACE.

New Claims 4-6 have been substituted in order to more directly point out the invention.

As described in the specification, in the prior art, motor vehicle data processing tasks have been divided into two kinds (called control tasks and telematic tasks in the claims), which normally have been handled separately by different hardware. Prior art attempts to handle both of

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these types of tasks with only one operating system has led to disadvantages.

In accordance with the present invention, however, these two kinds of tasks are handled by one operating system without the prior art disadvantages. More specifically, the disadvantages of the prior art have been overcome by putting control tasks into a suspended mode when they complete while telematic tasks are terminated when they complete. This has been achieved in particular by extending the kernel of an operating system that destroys tasks when they complete. The kernel extension allows the operating system kernel to handle telematic tasks in usual fashion (i.e. terminate them when complete) while handling control tasks differently by suspending them instead when they complete.

A new reference WONG has been cited. WONG describes a fault-tolerant automobile control system, which uses a multitasking operating system. Inherently, a multitasking operating system executes one task while suspending others. However, the suspended tasks are tasks that have not completed. In the usual multitasking system, when a task completes it is terminated and the system resources used to perform that task are freed up for reuse. This is different than in the claimed system where one kind of task (namely control tasks) are put in a suspended state after

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they complete in order to avoid a need to rebuild resources for control tasks.

The Examiner suggests that WONG describes a suspension mode for handling control tasks. However, the cited passages fail to teach or suggest this. The cited passages only seem to describe multitasking. It is not clear from the passages how completed tasks in general (or control tasks in particular) are handled when they complete, i.e. by terminating them or by suspending them. My assumption is that completed tasks will terminate. In any event, there is no teaching or suggestion of handling one class of completed tasks one way (terminating them) and another class of completed tasks another way (suspending them) or any mention of handling control tasks in particular differently in any way than telematic tasks as now clearly required in the new claims.

It is not contended that a suspension mode for completed tasks is novel per se, even though the cited art does not appear to teach or suggest this mode. Even the use of both modes in one operating system is not being broadly claimed. What is claimed is different handling of completed control tasks and completed telematic tasks by a single operating system in a motor vehicle application.

SPIX describes a very complex multiprocessor operating system that is also multithreaded and has no clear use on-

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board a motor vehicle. While such an operating system clearly suspends tasks that have not completed in favor of working on other tasks that have not completed, it is not clear that the SPIX operating system suspends one class of tasks when they complete while terminating another class of tasks when they complete. Even if SPIX does incidently describe both ways of terminating tasks (which is not admitted), there is no teaching or suggestion of suspending motor vehicle control tasks when they complete while terminating motor vehicle telematic tasks when they complete as claimed.

While it is understood that references have been cited together, still there must be some teaching or suggestion in one of them to handle the completion of motor vehicle control tasks differently than motor vehicle telematic tasks as claimed. Otherwise, a person of ordinary skill would assume that both kinds of tasks will be handled similarly by a single operating system!

WALLACE describes a motor vehicle control system that is multi-tasking. Clearly tasks are suspended before they are completed in favor of making another task active. However, it is not clear that one kind of task is handled differently when it has been completed than another kind of task is handled when completed. It isn't even clear that WALLACE contemplates an integration of telematic tasks with

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control tasks. What is being handled appears to be "vehicle processes", which to a person of ordinary skill suggests control tasks.

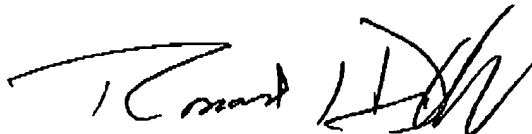
It is considered not obvious to place control tasks in a suspended mode after they complete because this reserves system resources for these tasks even though they have completed. The inventor has perceived, however, an overall advantage from not having to rebuild needed system resources the next time such tasks are done, especially when the control tasks are directly suspended by an extended kernel. Since needed system resources need not be rebuilt for control tasks, such tasks are quickly performed in real time, which is important for control tasks. Telematic tasks are not suspended when completed in order to avoid thereby slowing down completion of control tasks. Such different handling of control tasks and telematic tasks by one operating system is considered unobvious.

CONCLUSIONS

It is believed that all of the pending claims fully meet all of the requirements of 35 U.S.C. §112 and also distinguish readily over all of the cited art, when taken individually and in combination. Accordingly, allowance of the pending claims is believed to be in order and is respectfully solicited.

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Respectfully submitted,



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